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ABSTRACT

The Self-Assessment Questionnaire (SAQ) was developed to evaluate the study and learning behavior of urban Black and Hispanic students in ways not measured by existing study skills instruments. The instrument attempts to deal effectively with "non-intellectual" factors identified previously as having an impact on study and learning behavior. In a preliminary stage, the SAQ consisted of 140 5-point Likert scale items. Of these, 76 were devoted to Task Skills, 41 to Cognitions, and 23 to Affect. This version of the SAQ was administered to 681 Black and Hispanic freshmen in two New York City and one New Haven, Connecticut high school. Then, the item set was reduced by selecting out items correlated with criterion and validity measures, the remaining items were factor analyzed to develop scales, and, finally, an independent subsample was taken to test the predictive power of the scales derived through factor analysis. Overall, the questionnaire showed that some meaningful non-intellective, non-skill contributors to minority student academic performance can be empirically identified. These data suggest three avenues for further research: (1) given the surprising strength of non-intellective factors, discouragement with school and the evaluation of the school self are areas deserving more attention; (2) approaches to developing alternative instrumentation in this area must proceed carefully in the use of validity criteria; and (3) assessment of items which can discriminate between the mid-range performers and high- and low-level performers would also be of great importance. (KH)

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The Self-Assessment Questionnaire: Contributors to Minority Student Academic Performance

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It should be clear from the preceding discussion (Haynes, Armour-Thomas, & Rollock, 1986) that a variety of non-skill factors may have impact on study and learning behavior in ways not measured by existing study skills instruments. Specifically, the attributional and affective contexts in which study behavior takes place may critically affect achievement behavior and outcomes. Thus, study skill and strategy inventories should be developed and refined in ways reflecting these. "Intellectual" efforts may count for naught in school if the proper constellation of non-intellective resources is not present for a given student. This paper will attempt to illuminate some of the substantive and methodological issues involved herein by detailing an exploratory attempt to construct a study skills and attitudes questionnaire for urban Black and Hispanic high school students.

The non-skill attributional arena is particularly important to consider in predicting and facilitating achievement patterns of ethno-cultural minorities. For many minority students, educational tasks may take on unintended but highly salient meanings. Indeed, our initial interest in this area was kindled by the need to understand and remedy the unexpected academic difficulties experienced by academically competent Black and Hispanic students accepted into a competitive supplementation and enrichment program in a New York City high school. If attributions do govern behavior in school situations (e.g., Weiner,

Graham, Taylor & Meyer, 1983), then narrowly-conceived study skills instruments for many students may consequently predict little of academic achievement. Furthermore, the pervasive dearth of good research on minority populations may have implications for the use of most standard study skills instruments with those populations. In this light, it is informative to discuss one set of preliminary attempts to develop assessment instruments dealing with these so-called "nonintellectual" factors. This presentation will focus on the relative predictive value of these factors for Black and Hispanic high schoolers' academic performance.

Conceptual Background of the SAQ and Its Development.

To begin the process of questionnaire development in this area, it was decided to use an analytic strategy outlined by Weinstein, Zimmerman, & Palmer (1985). Specifically, this strategy calls first for the creation of an item pool of relevant items, followed by the reduction of the item pool by elimination of items with low correlations to external validity criteria, the compilation of the remaining items into scales, and finally the assessment of the scales' predictive validity.

In the first step in this process, it was recognized that the item pool should be heterogeneous for such an exploratory

venture. Individual items were therefore created according to a broad prior scheme. Roughly half the items included were non-skill-related. Three dimensions were used to focus these efforts. These dimensions, presented in Table I, are Cognitions, Task Skills, and Affect. Embedded in these dimensions are self-esteem (e.g., Rosenberg & Simmons, 1971) locus of control (e.g., Weiner, Heckhausen, Meyer, & Cook, 1971) and anxiety (Tobias, 1979) variables which have been discussed by many educational researchers as being important to determining student academic performance.

One area which does somewhat more discussion at this time is the dimension labelled "Affect." This is used primarily to refer to the emotional value assigned to school-related experiences, as well as the learner's perception of the general value of academic success to significant others in his or her life. It has been argued (e.g., Kreitler & Kreitler, 1976) that the prediction of behavior from attitudes is enhanced by assessing not only the value of the target behavior to the individual subject, but also the subject's perception of the value of the target behavior in the context of the wider society. Ogbu (1978) has argued that educational attainment by minority high school students is often low because of their accurate perceptions that the barriers to equal opportunity for success are more formidable than can be overcome simply by academic advancement. Since reward for achievement is low, motivation for achievement naturally

drops commensurately. This position is reminiscent of the findings of Rosenberg & Simmons (1971) that Black elementary school children, despite their lower school grades, did not suffer a correspondingly lower level of self-esteem when compared with their higher-achieving white counterparts. The implication drawn by Rosenberg and Simmons was that these Black students had come to rely less on school success as a major determinant of their feelings of self-worth. Similarly, Banks, McQuater, & Hubbard (1978), working with Black High school students, have shown that achievement motivation will be evidenced wherever there is sufficient interest in the stimulus task or the reward structure surrounding the task.

The importance of the values of significant others to shaping academic achievement strivings have been demonstrated most recently by Cauce (1985). She has documented that the degree to which young Black adolescents' social networks emphasize school achievement is strongly positively correlated with those adolescents' actual school competence.

In all, 140 5-point Likert scale items were developed. Of these, 76 are devoted to Task Skills, 41 to Cognitions, and 23 to Affect.

Administration of the SAQ.

The Self-Assessment Questionnaire was administered to 681 Black and Hispanic freshmen in two New York City and one New Haven high schools. Of this number, approximately two-thirds (435) were female, and approximately one-third (269) participated in the enrichment program mentioned above. All but a handful were outside the age range of 12 to 14 years. A small but representative subsample for whom school grades were immediately available was used to calculate correlations in the next phase of exploration.

The second stage of the SAQ's development involved the reduction of the item set by selecting out items correlated with criterion and validity measures. Weinstein et al. (1985) recommended the reasonable path of selecting items based on their correlation with grade-point average (at least at the .10 level of significance) and their "lack" of strong correlation with a scale such as the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1964) (at most with r=.50). Weinstein has argued here and elsewhere (e.g., Schulte & Weinstein, 1981) that if the prediction of academic performance is the desired outcome, then preselection of items based on this criterion is necessary. Similarly, if items correlate highly with Social Desirability, then response sets rather than actual behaviors of interest may be operative. However, on both counts, it seemed important to employ a somewhat different set of criteria for the purposes of this

exploratory study.

First, GPA alone may not fully tell the story of student achievement, and an expanded notion of what student "performance" is may be important. Secondly, the correlation of .50 between item score and Marlowe-Crowne scores may be high to use with respect to Black and Hispanic populations. These populations have typically been found higher in baseline measures of "social sensitivity"--such as social conformity situations and Witkin's Field Dependence/Independence--than their non-minority counterparts. High correlations with Social Desirability might therefore pose a greater difficulty in predicting actual performance. Furthermore, a consistent level of significance would also seem appropriate for such an initial investigation. Therefore, in contrast with Weinstein's criteria for item retention in her scale, the LASSI, items were selected for the SAQ which (a) correlated at a significance level below .10 with at least two course grades or grade average, and (b) correlated at a significance level above .10 with the Marlowe-Crowne.

Using these criteria, interestingly, most of the Task Skill items were rejected from further analysis. This was due to consistently high correlations with Marlowe-Crowne scores. (The average Marlowe-Crowne score for this sample was 18.79, with a

standard deviation of 5.71. Marlowe & Crowne, 1964, reported an average mean of 15.94 with standard deviation of 5.54 for their predominantly white standardization samples. Although not significant, this confirmed initial suspicions that this ethnic minority sample would have higher scores than the white samples, and justified some caution in performing these explorations.) Twenty-two items were retained.

The third stage of data analysis was to factor analyze the remaining items to develop scales. A factor analysis was performed on the 22 items which met the initial selection criteria. When these were entered into a principal components analysis, 6 factors with eigenvalues greater than 1.0 were extracted after varimax rotation. These results can be seen in Table 2.

The final stage was to take an independent subsample and test the predictive power of the scales derived through factor analysis. The items within each factor were summed to give simple scale scores. The means and standard deviations are given in Table 3a. These are broken down by what has been termed here "Performance Level." As mentioned before, straight correlation with GPA might not be as helpful or useful as knowing the range in which students may fall. Performance Level I includes grade averages below 65, Performance Level II includes grade averages between 65 and 85, and Performance level III

includes grade averages above 85. Perusal of the means reveals most differences in predicted directions, with students in the lowest Performance Levels showing more discouragement with their educations, poorer study habits, poorer senses of control over school experiences, lower general motivation, and blocked emotional expression. Although the differences in SAQ scores between students of the 3 Performance Levels are clearly not large, it was decided that a more formal assessment of the predictive value of the scales was important for this exploratory analysis.

A discriminant function analysis was computed, and subjects classified through use of their computed dimension weights. These results are in Table 3b.. The overall classification was just over 51% correct (considerably higher than the 33% which would have been expected by chance). It can be seen that the middle Performance Level was the most difficult to classify based upon weighted SAQ factor scale scores.

Summary of results, with discussion.

Overall, then, it seems that, even using preliminary data with a very heterogeneous item set, some meaningful non-intellective, non-skill contributors to minority student academic performance can be empirically identified. These early data are of course far from conclusive, but they suggest at least three key

avenues for further exploration.

First, non-skill, non-intellective factors show a surprising strength among the myriad contributors to performance of minority high school students in school. These results suggest that discouragement with school and the evaluation of the school self are areas which deserve more attention. Alternative assessment concepts and procedures should be considered critical for those dealing with minority student underachievement.

Second, approaches to developing alternative instrumentation in this area must proceed carefully in the use of validity criteria. In this preliminary study, the Marlowe-Crowne Social Desirability Scale scores did not come out in raw form or predict item patterns in quite the ways expected.

Third and finally, assessment of items which can discriminate between the mid-range performers and high- and low-level performers would also be of great importance.

Alternative assessments, founded on sound and extensive research, will be vital for the proper understanding and support of minority student academic achievement.

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The Self Assessment Questionnaire: Contributors to Minority Student Academic Performance

Table 1.
Guiding Principles: Factors Affecting Motivation and Success

Cognitions	Task Skills	Affect
belief in personal control	help-seeking inhibitions	value of schoo
general belief in control	distractions from learning	unrealistic go
belief in change	note-taking	values of sig. others
fear of failure	exam-taking	
fear of success	emotion management	self-esteem
concept of own abilities	time management	anxiety
negative self-statements	task analysis	

Table 2.
Reduced Set of Self-Assessment Questionnaire (SAQ) Items

SAQ Factor 1: "Discouragement with education."

Factor Loading	Item
(.769)	I am disappointed in my school performance.
(.634)	I often think to myself that I'm just not good at schoolwork.
(.619)	I feel discouraged about my academic future.
(.608)	I tend to put things off much more than most students.
(.582)	I need to put in more time on my schoolwork.
(.549)	I think I have trouble studying because I don't know what my goals are.

SAQ Factor 2: "Positive evaluation of school self."

Factor Loading	Item
(.620)	I believe that I can use my education as a tool against racism.
(.603)	Even when I don't understand the importance of some of the things they teach in high school, I still think that it will be useful some day.
(.523)	I am able to do things as well as other people.
(-.561)	If I began to do badly in school, I'd begin to think that I was doing something wrong.

Table 2 (cont'd).

SAQ Factor 3: "General study preferences."

Factor Loading	Item
(.686)	I tend to study where it is very quiet.
(.623)	Before I go to class, I try to test myself to be sure that I know the material I have studied.
(.464)	When I don't like a teacher, I find it hard to study for that class.
(.461)	The grades I get are due to my own work and effort.

SAQ Factor 4: "Locus of control."

Factor Loading	Item
(.586)	My class notes are usually disorganized, even if the lecture was well organized by the teacher.
(.499)	There is little I can do to change the way I am.
(.441)	I've only done alright in school when the material was easy.
(-.637)	When I have a problem in school, I believe that the answer is determined by forces under my control.

Table 2 (cont'd).

SAQ Factor 5: "General motivation."

Factor Loading	Item
(.723)	When I am given a very hard homework assignment, I usually don't try to get help with it.
(.468)	I skip classes that I could just as easily attend.

SAQ Factor 6: "Affective expressiveness."

Factor Loading	Item
(.708)	I always show my feelings in class.
(-.503)	I don't like how some students distract others in class, but I don't know how to tell them how how I feel.

Table 3A.
Means and Standard Deviations of SAQ Factors for Successive Academic Performance Levels

	GRADE PERFORMANCE LEVEL					
	Level I (Average below 65)		Level II (Average bet 65 & 85)		Level III (Average above 85)	
FACTOR	N	Mean (S.D.)	N	Mean (S.D.)	N	Mean (S.D.)
Factor 1	43	11.33 (4.45)	30	11.17 (4.17)	16	9.12 (2.80)
Factor 2	43	9.21 (2.17)	30	8.80 (2.04)	16	8.06 (1.57)
Factor 3	43	8.98 (2.57)	30	9.27 (3.18)	16	9.50 (3.14)
Factor 4	43	8.93 (2.70)	30	8.63 (2.93)	16	8.06 (2.54)
Factor 5	43	3.05 (1.27)	30	3.40 (1.50)	16	3.37 (1.31)
Factor 6	43	4.95 (1.95)	30	5.00 (1.64)	16	5.75 (1.91)

Table 3B.
Discriminant Analysis Classification Summary

		ACTUAL LEVEL			
PREDICTED LEVEL		LEVEL I	LEVEL II	LEVEL III	TOTAL
LEVEL I	N	23	9	11	43
	%	53.49%	20.93%	25.58%	100%
LEVEL II	N	13	8	9	27
	%	43.33%	26.67%	30.00%	100%
LEVEL III	N	1	3	12	19
	%	6.25%	18.75%	75.00%	100%
TOTAL	N	37	20	32	89
	%	41.57%	22.47%	35.96%	100%